



Response to Comments

Facility ID:	0302020336
Facility Name:	LIMA ENERGY COMPANY
Facility Description:	UCSC Production Facility
Facility Address:	1046 SOUTH MAIN ST Lima, OH 45804 Allen County
Permit:	P0115577, Permit-To-Install and Operate - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Lima News on 02/15/2014. The comment period ended on 03/24/2014.	
Hearing date (if held)	03/18/2014
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: Earthjustice and the Sierra Club submitted several written comments that are summarized as follows:

Comment #1: Ohio EPA Must Require Greenhouse Gas Emissions Limits Based on Best Available Control Technology because the Lima Facility is a Major Source of Greenhouse Gas Emissions and must be required to obtain a Title V Operating permit

Response #1: The permit was developed in accordance with long standing procedures that Ohio EPA has applied for purposes of limiting potential to emit for facilities in similar permitting situations. The permit contains requirements that conform to the necessary components to establish the facility as a "minor source" with respect to Prevention of Significant (PSD) and Title V applicability. Please see related response to comment #2 below.

Comment #2: The Draft Permit's Greenhouse Gas Emissions Limits Amount to an Unenforceable Blanket Emissions Limitation, Not Practically Enforceable Operational or Design Limitations

Response #2: The greenhouse gas emissions or carbon dioxide equivalent (CO₂e) emissions are mainly associated with startups, shutdowns, and malfunctions of the synthetic fuel processing operation and from fuel combustion in the facility's roller drying mills. Restrictions limiting the level of these emission generating



activities have been established in the permit along with an emission limitation to represent potential to emit as outlined in U.S. EPA guidance “Limiting Potential to Emit (PTE) in New Source Review (NSR) Permitting” (see <http://www.epa.gov/reg3artrd/permitting/limitPTEmmo.htm>). The restrictions and emission limitation have been established in consideration of details such as maximum design and achievable capacity. The permit contains appropriate monitoring and recordkeeping along with quantification of emissions for purposes of verifying compliance. The CO₂e emission limitation is not representative of a blanket emission limitation and additionally does not lack verification or enforcement capability.

Comment #3: The Draft Permit's Greenhouse Gas Provisions for the Thermal Oxidizer Fail to Account for Emissions from Process Upsets and Malfunctions.

Response #3: The permit does address GHGs from these events in the permit. The hourly limitation on the venting of the acid gas recovery (AGR) unit to the oxidizer was established in part to restrict malfunctions associated with this process. The permit refers to these events as “non-routine” process emissions. These emissions are accounted for in the rolling CO₂e emission limitation and the associated emission quantification.

Comment #4: The Draft Permit's Greenhouse Gas Provisions for Both the Thermal Oxidizer and the Drying Mills are also Unenforceable Because They fail to require any Actual Monitoring of Greenhouse Gas Emissions.

Response #4: The permit does not include any requirement for a continuous CO₂e monitoring system and does not have direct testing requirements for CO₂e emissions. Ohio EPA did not consider continuous monitoring of carbon dioxide (CO₂) as a viable approach given the limited time a monitor would experience an actual exhaust gas flow. The amount of CO₂ generated is required to be calculated by the permit. CO₂ emissions will be determined using operational data and quantification methods that are applied to the system for process control. Such operational data will involve CO₂ analyzers within the process specifically located before and after the acid gas recovery unit where CO₂ separation is performed. As natural gas combustion sources, the dryers associated with emission units P010-P013 have CO₂e emissions that are well established and no testing would be necessary. The permit does include extensive recordkeeping requirements for calculating total greenhouse gas emissions.

Comment #5: The Draft Permit Fails to Ensure that the Lima Facility's Greenhouse Gas Emissions, to the Extent that They Are Captured by the Facility, Will Be Permanently Isolated and Will Not Enter the Atmosphere.

Response #5: Ohio EPA understands the concerns presented with regards to the potential environmental impacts associated with the surplus liquid CO₂. Ohio EPA is of the position that these impacts are not currently considered to be associated with the air permitting requirements of this facility and are therefore beyond the scope of this permit. Compliance with GHG regulations for operations that do not fall under the control of Lima Energy Company (LEC) will be the responsibility of the owner/operator of such operations. Ohio EPA will review the circumstances for all liquefied CO₂ that leaves the facility to ensure compliance with appropriate rules and regulations and to ensure the minor source permit issued to LEC does not involve a “sham” permit which is



prohibited by new source review regulations.

Comment #6: The Draft Permit's Blanket Emissions Limits on Sulfur Dioxide are Not Practically Enforceable, and Ohio EPA Should Find that the Lima Facility is a Major Source of Sulfur Dioxide and Require BACT Limits.

Response #6: The majority of the sulfur dioxide (SO₂) emissions are associated with the startups and shutdowns emissions which have an operational restriction in place for the purpose of limiting SO₂ emissions. The SO₂ emissions are approached in the same manner as limiting CO₂e emissions, please refer to the response to comment # 2.

Comment #7: The Draft Permit Must Regulate Both Filterable and Condensable Particulate Matter Emissions.

Response #7: Ohio EPA concurs with the commenter that the permit limits accounted for filterable particulates only. The permit has been modified to account for both filterable and condensable particulates.

2. Topic: Allen County Citizens for the Environment (ACCE) submitted two comments on its concerns with regards to the sequestration of liquid CO₂:

Comment #1: The treatment of the sequestered products in an underground operation will impact upon the aquifer and the local businesses (e.g., INEOS) to maintain it's employment base in Lima.

Response #1: Ohio EPA understands the concerns of the ACCE with regards to the potential environmental impacts of CO₂ sequestration. However, these impacts are not currently considered to be associated with the air permitting requirements of this facility and are therefore beyond the scope of this permit. Sequestration and/or any type of pipeline operations will be required to obtain the appropriate approvals, permits, etc. and the concerns of ACCE would be better addressed during the required permitting and approval process.

Comment #2: An interstate pipeline to carry out some hazardous product does not appear to be thought through in terms of an ultimate user and the disruptions to the land between Allen County and Eastern Ohio, an area already adversely impacted in the eastern part of the state with extensive fracking.

Response #2: Please see response to comment #1 above and response to Comment #5 submitted by Earthjustice and Sierra Club.

3. Topic: INEOS Nitriles submitted three comments which primarily reflect concerns associated with the liquid CO₂. These comments were also placed into testimony by Joseph Bianco during the public hearing and our responses are as follows:

Comment #1: The PTIO should specify how Lima Energy must manage the six millions tons per year of CO₂ byproduct.

Response#1: The Ohio EPA understands the concerns of INEOS with regards to the potential environmental impacts associated with the surplus liquid CO₂. However, these impacts are not currently considered to be associated with the air permitting



requirements of this facility and are therefore beyond the scope of this permit. See response to Comment #5 submitted by Earthjustice and Sierra Club and response to Comment #1 submitted by Allen County Citizens for the Environment.

Comment #2: The Director should consult with Ohio EPA's DDAGW to make clear that Lima Energy will not be permitted to locally inject the CO₂ byproduct .

Response #2: Please see response to Comment #1 above.

Comment #3: Page 12 - Typographical error, it should read "93,000".

Response #3: Ohio EPA concurs, and revised the term accordingly.

4. Topic: The United States Environmental Protection Agency, submitted two written comments, regarding to the material handling, storage and processing operations.

Comment #1: The material handling and storage operation, Emissions Unit #F004, is subject to 40 CFR Part 60.254 Subpart Y: Standards for Coal Preparation Plants. Please add the applicable particulate emission limitation of 0.01gr/dscf to the permit.

Response #1: Ohio EPA concurs and will revise the permit accordingly.

Comment #2: To assure compliance with the 0.001 gr/dscf PM₁₀ emission limitation for Emission Unit #s P010, P011, P012, and P013, the baghouse should be equipped with a bag leak detection system.

Response #2: The permit does not include any requirement for a bag leak detection system however it does include testing requirements, daily visible emission evaluations, and the subsequent recordkeeping and reporting requirements. Ohio EPA believes this approach is sufficient to assure initial and continuous compliance with the PM₁₀ emission limitation.

5. Topic: The permit applicant, Lima Energy Company, submitted a total of 41 written comments, with suggested language changes and rule clarifications.

Comment #1: Typographical error in the Permit Strategy Write Up where it should say "LEC" instead of "LRC".

Response #1: Ohio EPA concurs with the applicant.

Comment #2: The Permit Strategy Write Up references CO₂e limits that are not specified in the permit application.

Response #2: Ohio EPA concurs with the applicant that the permit application specifies different total TPY values for CO₂e other than what is specified in the Permit Strategy Write Up. Although the Permit Strategy Write Up references facility wide emissions, the focus of the write up is to specify the emissions associated with the federally enforceable emission limitations specified in the permit. Several emissions sources, including the generators, are exempt from permitting requirements and are therefore not included in the permit. Although



accounting for these emissions is important in determining the overall potential to emit of the facility, permit restrictions on otherwise exempt sources is usually not necessary. The permit, as written, establishes federally enforceable requirements on the pertinent emission units and pollutants necessary to maintain the facility as a "Minor Source". In addition, the Permit Strategy Write Up is used for informational purposes only and is not part of the final permit issuance.

Comment #3: The Permit Strategy Write Up references an 8.8 TPY limit for Methanol that was not present in the permit application.

Response #3: Ohio EPA concurs with the applicant that the permit application specifies 7.13 TPY for facility wide Methanol emissions. However the application also asked for a facility wide limit of 9.0 TPY for Methanol. The Ohio EPA does not use "facility wide" caps on pollutants as they usually are not considered federally enforceable. The applicants' information indicated small amounts (~0.2 TPY) of Methanol from sources other than fugitive equipment leaks. Therefore the 8.8 TPY limit was placed on the fugitive Methanol emissions to reach the 9.0 TPY requested. Per the request of the company on this comment and subsequent comments, the OEPA will reduce this limit to 7.0 tons per rolling 12-month period to achieve the company's proposed value.

Comment #4: Page 1 – Zip code is indicated as 45801 and should be 45804.

Response #4: Ohio EPA concurs with the applicant, and revised the zip code accordingly.

Comment #5: Page 10, Standard Terms and Conditions. – The limitation of 93,000 TPY for CO₂e addresses the 5 main sources but there is no mention of emission unit B001 and the other sources that emit CO₂e.

Response #5: The commenter is correct however please see the Ohio EPA response to comment #2.

Comment #6: Page 12, Standard Terms and Conditions. – Inquiry as to what emissions are to be reported on. .

Response #6: The company needs to only to report on any requirements specified in the permit, not in the application.

Comment #7: Page 12, Standard Terms and Conditions – Typographical error, it should read "93,000" tons.

Response #7: Ohio EPA concurs with the applicant, and revised the value accordingly.

Comment #8: Page 12, Standard Terms and Conditions – Typographical error, it should read "P010-P013".

Response #8: Ohio EPA concurs with the applicant, and revised the language accordingly.

Comment #9: Page 15, Emission Unit B001 – Delete redundant regulation.

Response #9: The dual citation was intentional as OAC Rule 3745-31-05 has not yet been approved in its final form by USEPA, It is the Ohio EPAs position that since the permit requirements are different based on the effective dates of the same rule



that both need to be cited until such time as the final rule is approved and included in Ohio's State implementation Plan.

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| Comment #10 | Page 16, Emission Unit B001 – Typographical error, it should read “b)(2)e.” |
| Response #10: | Ohio EPA concurs with the applicant, and revised the language accordingly. |
| Comment #11: | Page 17, Emission Unit B001 – Concurs with the use of pipeline quality natural gas. |
| Response #11: | Ohio EPA concurs with the applicant. |
| Comment #12: | Page 22, Emission Unit F004 – term 2.b)(2)c should present a potential to emit equal to 3.5 tons/yr. |
| Response #12: | Ohio EPA will remove presentation of the value from the term to avoid confusion. |
| Comment #13: | Page 26, Emission Unit F004 – Typographical error, it should read “40 CFR 60.255(b)(2).” |
| Response #13: | Ohio EPA concurs with the applicant, and revised the language accordingly. |
| Comment #14: | Page 29, Emission Unit F004 – Typographical error, it should read “b)(2)e.” |
| Response #14: | Ohio EPA concurs with the applicant, and revised the language accordingly. |
| Comment #15: | Page 31, Emission Unit F004 – Permit references “material handling operations” instead of roadways and parking areas. |
| Response #15: | Ohio EPA concurs with the applicant, and revised the language accordingly. |
| Comment #16: | Page 33, Emission Unit J001 – Company requests the language be changed to limit throughput of the loading rack and not USCS production. |
| Response #16: | Ohio EPA accepts this change, and revised the language accordingly. |
| Comment #17: | Page 33, Emission Unit J001 – Company requests the language be changed to limit throughput of the loading rack and not USCS production. |
| Response #17: | Ohio EPA accepts this change, and revised the language accordingly. |
| Comment #18: | Page 35, Emission Unit P005 – Company identified that 661 tons CO ₂ e per hour for AGR Unit venting to TO would be the proper limitation. |
| Response #18: | Ohio EPA accepts this change, and revised the language accordingly. |
| Comment #19: | Page 36, Emission Unit P005 – Company identified that 1.94 tons SO ₂ per shutdown would be the proper limitation. |
| Response #19: | Ohio EPA concurs with the applicant, and revised the language accordingly. |
| Comment #20: | Page 37, Emission Unit P005 – Company requests the SO ₂ value be 23.1 tons plus an additional 0.72 tons of SO ₂ (for general venting) per rolling 12 month |



period.

- Response #20 - Ohio EPA concurs with the applicant that the startup/shutdown emissions should be 23.1 tons per year. However, as the federally enforceable restriction is only on the startup and shutdown emissions the agency feels that only the 23.1 tons per year should be included and accounted for in this limit.
- Comment #21: Page 38, Emission Unit P005 – Company requests the first line of the table be removed as there is a possibility that there could be two startups in the first month of operation.
- Response #21: Ohio EPA accepts this change, and revised the language accordingly.
- Comment #22: Page 40, Emission Unit P005 – Error in condition d)(1)o, should include CO₂e and should read d)(1)l.
- Response #22: Ohio EPA concurs with the applicant, and revised the language accordingly.
- Comment #23: Page 43, Emission Unit P005 – Same as comment #20.
- Response #23: Please see the response to comment #20.
- Comment #24: Page 44, Emission Unit P009 – Typographical error, it should read “0.92 lb/hr”.
- Response #24: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comment #25: Page 46, Emission Unit P009 – Typographical error, should read “12,600,000 GPH”.
- Response #25: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comment #26: Page 48, Emission Unit P801 - Same as comment #3. plus a typographical error, it should read “See b)(2)b.”.
- Response #26: Ohio EPA concurs with the applicant on the error, please see the response to comment #3.
- Comment #27: Page 49, Emission Unit P801, Same as comment #3.
- Response #27: Please see the response to comment #3.
- Comment #28: Page 50, Emission Unit P801 -Typographical error, it should read “P801”.
- Response #28: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comments #29: Page 51, Emission Unit P801 -Typographical error, should read “micrograms per cubic meter”.
- Response #29: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comment #30: Page 53, Emission Unit P801, Same as comment #3
- Response #30: Please see the response to comment #3..



- Comment #31: Page 53, Emission Unit P801, Requirement specifies a monitoring plan and references several different federal requirements, the applicant requests compliance via 40 CFR Part 63 Subpart CC.
- Response #31: Ohio EPA concurs with the applicant's request, and revised the language accordingly.
- Comment #32: Page 57, Emission Unit T004, Request to use an alternate compliance method (Antoine's Equation).
- Response #32: Ohio EPA requests that the applicant make this request after permit issuance.
- Comment #33: Page 58, Emission Unit P801 -Typographical error, it should read "b)(2)e.ii".
- Response #33: Ohio EPA concurs with the applicant, and revised the term accordingly..
- Comment #34: Page 60, Emission Unit P010-P013 Permit should reflect filterable PM10.
- Response #34: Ohio EPA disagrees this approach and has adjusted the limit to include condensable particulate emissions.
- Comment #35: Page 61, Emission Unit P010-P013 Permit should reflect filterable PM10.
- Response #35: Ohio EPA disagrees this approach and has adjusted the limit to include condensable particulate emissions.
- Comment #36: Page 62, Emission Unit P010-P013 -Typographical error, it should read "not".
- Response #36: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comment #37: Page 64, Emission Unit P010-P013 -Typographical error, it should read "0.001 grains/dscf".
- Response #37: Ohio EPA has revised this limit to include condensable particulates.
- Comment #38: Page 65, Emission Unit P010-P013 -Typographical error, incorrect citation.
- Response #38: Ohio EPA concurs with the applicant, and revised the term to read 40 CFR Part 62.255.
- Comment #39: Page 66, Emission Unit P010-P013 - Permit should reflect filterable PM10.
- Response #39: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comment #40: Page 51, Emission Unit P010-P013 -Typographical error, should remove double "//".
- Response #40: Ohio EPA concurs with the applicant, and revised the term accordingly.
- Comment #41: The company addressed concerns brought up at the public hearing in reference to the feasibility of sequestration of the liquid CO₂ which will be generated by the company.
- Response #41: Ohio EPA understands the desire of the company to respond to these comments with regards to CO₂ sequestration, however any potential



environmental issues associated with the surplus liquid CO₂ generation are beyond the scope of this permit.

6. **Topic: One other letter was received with written comments in favor of the project, with no response required from Ohio EPA. The commenter was:**

Jed Metzger, President/CEO, Lima/Allen County Chamber of Commerce

7. **Topic: Testimony at the March 18, 2014 public hearing:** a total of 10 people testified at the public hearing, and all (with the exception of the testimony presented by Mr Bianco addressed above) were in favor of the project, with no response required from Ohio EPA. Those testifying included:

Mathew Szollosi, Executive Director of ACT Ohio

Dave Berger, Lima Mayor

Mike Knisley, President, Lima Building Trades Council

Derry Glenn, 6th Ward City Councilman

Jed Metzger, President/CEO, Lima/Allen County Chamber of Commerce

Judy Cowan, President, Ohio Energy and Advanced Manufacturing Center

Jeff Sprague, President & CEO, Allen Economic Development Group

Jack Miller, Citizen

Bob Horner, Citizen